CRE stable cell line manual

Catalog Number	Product	Amount
SC004-RB	Stable cell line expresses nuclear permeable CRE recombinase with RFP and Blasticidin dual marker	1 vial of cells (2×10^6 cells) in 80% DMEM, 10% FBS, 10% DMSO
SC004-RP	Stable cell line expresses nuclear permeable CRE recombinase with RFP and Puromycin dual marker	
SC004-GP	Stable cell line expresses nuclear permeable CRE recombinase with GFP and Puromycin dual marker	
SC004-Puro	Stable cell line expresses nuclear permeable CRE recombinase with Puromycin marker	
SC004-Neo	Stable cell line expresses nuclear permeable CRE recombinase with Neomycin marker	
SC004-Bsd	Stable cell line expresses nuclear permeable CRE recombinase with Blasticidin marker	

Storage: Liquid nitrogen

Product Description

The HEK293 Cell Line is a permanent line established from primary embryonic human kidney transformed with sheared human adenovirus type 5 DNA. The expressed E1A adenovirus gene allows these cells to produce very high levels of protein.

CRE recombinase, from bacteriophage P1, catalyzes recombination between 34 base pair target sequences, named Lox sites. CRE-Lox recombination is a special type of site-specific recombination, and widely used to delete loxP-flanked chromosomal DNA sequences at high efficiency *in vivo*.

CRE stable cell is transformed from the 293 cell line and stably expresses a nuclear localized CRE recombinase (with an nuclear localization signal, NLS, at N-term of CRE). It is established by trasnsduction of CRE expression lentivirus. CRE is constitutively expressed in high-level under suCMV promoter. When included, a fluorescent protein (**GFP** or **RFP**) was co-expressed under the same promoter, as separated protein (not as fusion). The cell also contains an antibiotic selection marker under RSV promoter. Please see the **expression cassette** below for the expression structure.

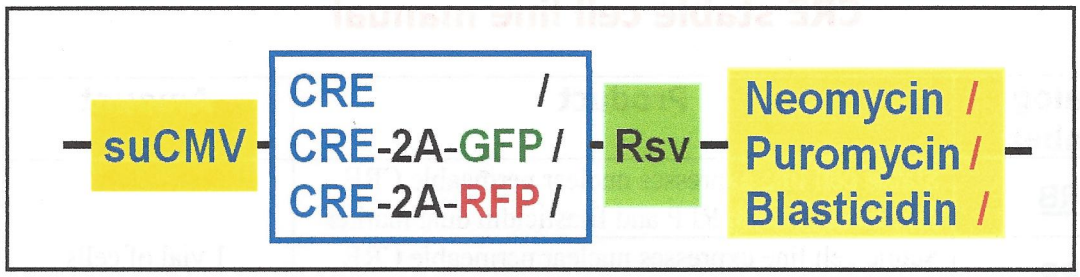
UK & Rest of World
184 Milton Park, Abingdon
OX14 4SE, Oxon, UK
Tel: +44 (0) 1235 828 200
Fax: +44 (0) 1235 820 482

Switzerland
Centro Nord-Sud 2E
CH-6934 Bioggio-Lugano
Tel: +41 (0) 91 604 55 22
Fax: +41 (0) 91 605 17 85

Deutschland
Bockenheimer Landstr. 17/19
60325 Frankfurt/Main
Tel: +49 (0) 69 779099
Fax: +49 (0) 69 13376880

North America
23591 El Toro Rd, Suite #180
Lake Forest, CA 92630
Tel: + 1 800 987 0985
Fax: + 1 949 265 7703

amsbio
info@amsbio.com
www.amsbio.com
AMS Biotechnology



GenTarget provides different CRE expression stable cell lines with different fluorescent and antibiotic markers. The fluorescent marker provide a convenient method to monitor the CRE expression.

Culture procedures

1. Thaw the frozen vial of cells quickly in a 37°C water bath (1~3min), decontaminate the outside of the vial with 70% ethanol.
2. Transfer the entire contents of the cryovial into a T-75 cm2 flask containing 15 ml of pre-warmed complete medium. Incubate the cells overnight in a 37°C incubator, 5% CO2.
3. The following day, replace the medium with 15 ml of pre-warmed, **complete medium** (see below for its components).

   Optional: No need to add antibiotic. But if wanted to maintain a long-term culture, add appropriate antibiotic (dependent upon the product) into the medium as follows:

   10 ug/ml final Blasticidin
   Or: 5 ug/ml final Puromycin
   Or: 50 ug/ml final Neomycin

4. Incubate the cells and monitor cell density.
5. Pass cells (1:10 dilution) when the culture reaches 80-90% confluent.
6. Freeze cells at a density of 3 x 10^6 cells/ml using 90% complete medium with 10% DMSO.

Complete medium

D-MEM (high glucose)
2mM L-glutamine
10% Fetal Bovine Serum (FBS)
0.1 mM MEM Non-Essential Amino Acids (NEAA)
1% Pen-strep

Quality Control

Each vial contains greater than 2 x 106 cells with >95% viability before freeze. Cells are tested free of bacteria, viruses, mycoplasma.

UK & Rest of World
184 Milton Park, Abingdon
OX14 4SE, Oxon, UK
Tel: +44 (0) 1235 828 200
Fax: +44 (0) 1235 820 482

Switzerland
Centro Nord-Sud 2E
CH-6934 Bioggio-Lugano
Tel: +41 (0) 91 604 55 22
Fax: +41 (0) 91 605 17 85

Deutschland
Bockenheimer Landstr. 17/19
60325 Frankfurt/Main
Tel: +49 (0) 69 779099
Fax: +49 (0) 69 13376880

North America
23591 El Toro Rd, Suite #180
Lake Forest, CA 92630
Tel: + 1 800 987 0985
Fax: + 1 949 265 7703

amsbio
info@amsbio.com
www.amsbio.com
AMS Biotechnology

amsbio

Warranty and user terms

1. This product is warranted to perform as described when used in accordance with this manual. GenTarget Inc MAKES NO REPRESENTATIONS AND EXTENDS NO WARRANTIES OF ANY KIND, EITHER EXPRESS OR IMPLIED. Gentarget's sole remedy for breach of warranty should be, at the option of Gentarget, to repair or replace the product if this product does not meet the stated quality standard.
2. By paid the purchase price, buyer is granted a non-transferable, non-exclusive license to use the product. This product is sold **for research and development purposes only**.
3. This product is limited to the laboratory that the product is delivered to. This Product is not for resale; or distribute, transfer for any purpose, including transfer of the Product as a component of any products; GenTarget will retains all rights for this Product's license and other intellectual property.
4. This Product should used for non-profit purpose, including any products and services usage; Furthermore, **research use only** means that this product is excluded, without limitation, from resale, repackaging, or modification to be used for the making or selling of any commercial product s or services without the written approval of GenTarget. You may contact our Business Development department at support@gentarget.com for product proprietary information.
5. GenTarget is not liable, and do not have any responsibility or liability, whatsoever for any direct and indirect, consequential, or other damages resulted from using this Product.

Related Products:

Product Category	Product Description: Pre-made expression lentiviruses with different selection markers.
Pre-mae stable cell lines	Mammalian cell lines with different selection markers, expressing CRE recombinase, or a fluorescent protein (GFP/RFP/CFP/YFP), or inducible represser protein (tetR), or a human ion channel target, or loxP response element (CRE reporting, ColorSwtich), or lacZ target, or a human ORF.
GFP / RFP/ YFP/ CFP	Premade lentivirus expressing a **flourescent protein** with different antibiotic marker.
Luciferase expression	Premade lentivirus for all kinds of luciferase protein expression: **firefly, Gaussia, Renilla and Cypridina** with different antibiotic selection markers.
CRE recombinase	Premade lentivirus for expressing **nuclear permeant CRE** recombinase with different flurescent and antibiotic markers.
LoxP ColorSwitch	Premade lentivirus expressing "LoxP-GFP-Stop-LoxP-RFP" cassette, used to monitor the CRE recombination event in vivo.
TetR inducible repressor	Premade lentivirus expressin TetR (tetracycline regulator) protein, the repressor protein for the inducible expression system.
iPS factors	Premde lentivirus for human and mouse iPS **(Myc, NANOG, OCT4, SOX2, FLF4)** factors with different fluorescent and antibitoic markers
Human and mouse ORFs	Premade lentivirus expressin **hundred of human and mouse ORFs** with RFP-Blastididin fusion dual markers.
Living cell imging	Pre-made lentivirus particles for Cell Organelle imaging for **Nucleus, Cytoplasm, Endoplasmic Reticulum, Golgi, Mitochondria, Nuclear membrane,**

	Peroxisome, Plasma membrane, Microtubule, Chromatin, Annexin, Actin, Connexin, and more.
Fluorescent-ORF fusion	Pre-made lentivirus expression a **"GFP/RFP/CFP-ORF"** fusion target.
shRNA lentivirus	Premade shRNA lentivirus for knockdown a specific genes (**P53, LacZ, Luciferase** and more).
Negative controls	Premade **negative control lentivirus with different markers**: serves as the negative control of lentivurs treatment, for validation of the specificity of any lentivirus target expression effects.

UK & Rest of World
184 Milton Park, Abingdon
OX14 4SE, Oxon, UK
Tel: +44 (0) 1235 828 200
Fax: +44 (0) 1235 820 482

Switzerland
Centro Nord-Sud 2E
CH-6934 Bioggio-Lugano
Tel: +41 (0) 91 604 55 22
Fax: +41 (0) 91 605 17 85

Deutschland
Bockenheimer Landstr. 17/19
60325 Frankfurt/Main
Tel: +49 (0) 69 779099
Fax: +49 (0) 69 13376880

North America
23591 El Toro Rd, Suite #180
Lake Forest, CA 92630
Tel: + 1 800 987 0985
Fax: + 1 949 265 7703

amsbio
info@amsbio.com
www.amsbio.com
AMS Biotechnology